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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/642,615

08/17/2000

David L. Multer

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LEV/JAV

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EXAMINER

CHANNAVAJJALA, SRIRAMA T

ART UNIT

PAPER NUMBER

2177

DATE MAILED: 04/25/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

7

Office Action Summary

Application No.

09/642,615

Applicant(s)

MULTER ET AL.

Examiner

Srirama Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Examiner acknowledges applicants' amendment filed on 3/13/2003, paper no.11.
2. Claims 11 has been amended, paper no. # 11.
3. Claims 12-17 have been added, paper no. # 11.
4. Claims 1-17 are pending in this application.

Specification

5. Applicant has incorporated by reference three co-pending applications, at page 8 line 6-8, of the specification. Examiner notes that incorporation by reference of an application in a printed United States patent constitutes a special circumstance under 35 U.S.C. § 122 warranting that access of the original disclosure of the application be granted. The incorporation by reference will be interpreted as a waiver of confidentiality of only the original disclosure as filed, and not the entire application file, *In re Gallo*, 231 USPQ 496 (Comm'r Pat. 1986). If Applicant objects to access to the entire application file, two copies of the information incorporated by reference must be submitted along with the objection. Failure to provide the material within the period provided will result in the entire application (including prosecution) being made available to petitioner. The Office will not attempt to separate the noted materials from the remainder of the application. Compare *In re Marsh Engineering Co.*, 1913 C.D. 183 (Comm'r Pat. 1913).

Applicant has incorporated by reference three co-pending applications, at page 8

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line 6-8, of the specification. Applicant hereby required to **update their status** in response to this office action, paper no. # 9.

Drawings

6. Examiner acknowledges applicants' formal drawings filed on 3/13/2003, paper no.13.

Information Disclosure Statement

7. The information disclosure statement PTO-1449 filed on 12/26/2000, paper no. # 4, has been considered and a copy was enclosed with this office action, paper no. # 9,

8. The information disclosure statement PTO-1449 filed on 3/13/2003, paper no. # 12 has been considered and a copy was enclosed with this office action, paper no. # 14

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1- 6,8-17are rejected under 35 U.S.C. 103(a) as being unpatentable over Birkler, WO 00/29998 in view of Bowen et al., [hereafter Bowen], US Patent No. 5832519.

10. As to Claims 1,8, 11, Birkler teaches a system which including 'updating application data in a client device of a data transfer and synchronization system' [see Abstract, fig 1, page 6, line 14-20], 'downloading a first change log of a plurality of change logs from a server system' [page 3, line 13-17, line 21-25], examiner interpreting

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change logs corresponds to Birkler's change log as detailed in fig 2, element 240, client device corresponds to first device, server system corresponds to second device as detailed in page 3, line 10, specifically, first device and second device entries are synchronized based on change log as detailed in page 3, line 13-17, 'each of said plurality of change logs reflecting changes to said application data' [page 4, line 4-11], 'adding said first change log, deleting said first change log' [page 7, line 22-25, page 12, line 4-7], 'repeating said downloading, adding, and deleting steps for a next change log of said plurality of change logs until no additional change logs exist' [page 10, line 23-28, col 12, line 31-18]. It is however noted that Birkler does not teach 'aggregate log, applying said aggregate log to said application data to update said application data'. On the other hand, Bowen et al teaches maintaining the data values such as aggregate numeric data values while allowing concurrent updates [see col 4, line 11-14], more specifically Bowen teaches aggregation system processor performs update operations through incremental updates and writing them into the log relation maintained in the memory as detailed in col 4, line 45-50.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Bowen et al., into optimization of synchronization procedures that utilize a change log system of Birkler because both are directed to database management system, more specifically Birkler directed to synchronization method in storing a change log having an associated change counter at a first database, updates the change counter at the first database in response to a

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database update command from a second database [see Abstract], while Bowen et al is directed to database management system which aggregation processor performs update operations by receiving the incremental updates from the computer and writing them into the log relation maintained in the memory [see fig 2, element 35, col 4, line 45-50]. One of ordinary skill in the art at the time of the inventing would have been motivated to modify the Birkler's reference, more specifically Birkler's fig 2 to incorporate the aggregation system fig 1, element 30 of Bowen et al. because that would have allowed users of Birkler optimization of synchronization procedures that utilize a change log system to control the aggregation system processor to update and maintain in the log, bringing the advantages of avoiding locking of database records for extended period of time, further greater levels of improving concurrency as suggested by Bowen et al [see col 4, line 15-27].

11. As to Claims 2 and 9, Birkler teaches a system which including 'retrieving information for a valid item' [page 10, line 16-20], 'updating a location of said valid item in said map' [page 12, line 4-7]. On the other hand, Bowen teaches 'updating a map of said aggregate log, said map storing meta-data' [col 5, line 12-19], 'writing said item to said aggregate log' [col 4, line 45-50].

12. As to Claim 3, Bowen teaches a system which including 'compacting said aggregate log if a compact threshold is exceeded' [col 4, line 60-66, col 5, line 1-6].

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13. As to Claim 4-6, Birkler teaches a system which including 'application data comprises data classes for contacts, calendar events, email messages, notes tasks, and files' [page 6, line 26-28].

14. As to Claim 10, Bowen teaches a system which including 'aggregate log' [see fig 1-2].

15. As to Claim 12, Birkler teaches a system which including 'log includes an identifier for a change' [page 3, line 13-17, line 26-28], Birkler specifically suggests for example unique identification of record in the database for update or change by means of unique identification.

16. As to Claim 13, Bowen teaches a system which including 'aggregate log includes requesting a binary delta for a file' [fig 4, col 2, line 61-65].

17. As to Claim 14-16, Bowen teaches a system which including 'aggregate log' [Abstract, col 6, line 49-60, fig 3-4].

18. As to Claim 17, Bowen teaches a system which including 'iterating over each record in the aggregate log' [53-59], 'reading valid records' [col 6, line 43-48, col 7, line 20-24], 'writing valid records back to the aggregate log overwriting obsolete records' [col 6, line 61-63, col 7, line 34-40].

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19. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birkler, WO 00/29998, Bowen et al., [hereafter Bowen], US Patent No. 5832519 as applied to claim 1 above, and further in view of Williams et al., [hereafter Williams], US Patent No. 5845283.

20. As to Claim 7, both Birkler and Bowen do not specifically teach 'universal data Format', on the other hand, Williams specifically teaches converting data formats into a common, universal data format [see col 2, line 14-16].

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teachings of Williams into Birkler and Bowen et al of database management system because they all are directed to database management [see Birkler: Abstract; Bowen: Abstract; and Williams: Abstract], also one of the ordinary skill in the art at the time of the invention would have been motivated to incorporate the teachings of Williams's universal data format because that would have allowed users of Birkler, Bowen to receive any data format and converting into predetermined universal data format bringing the advantages of greater flexibility of translate between multiple data formats [see col 2, line 9-23].

Response to Arguments

Applicant's arguments filed on 3/13/2003, paper no. # 11, Claims 1-17 have been fully considered but they are not persuasive, for examiners' response, see discussion below:

a) At page 11, line 4-6, Claim 1,8,11, Birkler et al. fails to teach any 'plurality of change logs'.....

b) At page 11, line 16-18, hence, there is no' plurality of change logs'.....

As to the above arguments [a-b], examiner disagree with the applicant because firstly, Birkler is directed to optimizing of change log, more specifically, updating the change information between databases as detailed in Abstract, secondly, Birkler specifically teaches for example performing updates based on the received information of the change log, even though only a portion of the change log is actually received [page 4, line 12-14], thirdly, as best understood by the examiner, plurality of logs are integral part of Birkler's teachings because, Birkler continues to not only receive entries of change log, but also updates change log based on received entries further these changes are associated with the database as detailed in fig 2, page 4, line 7-14.

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c) At page 11, line 22, Birkler et al does not teach or suggest the step ofdeleting said first change log'.....

d) At page 12, line 9-11, Birkler et al does not disclose the step of ...repeating saidadding, and deleting.....change logs exist"

As to the above arguments [c-d], examiner disagree with the applicant because Birkler is specifically directed to updating change log [page 4, line 12-14], further Birkler suggests for example each change llog that is associated with a certain act performed on the database such as add, delete, or modify and like as detailed in fig 2, page 7, line 22-24.

e) At page 12, line 16-18, because Birkler et al teaches only a single change log.....

As to the above argument [e], examiner disagree with the applicant because, Birkler specifically suggests for example a log or register in which changes made to the database(s) are stored, further unique identifier is assigned to each new entry into the database [page 7, line 19-27]. Therefore, Birkler specifically suggests more than single change log entries into the database.

f) At page 13, line 21-22, Bowen et al does not disclose an aggregated change log

g) At page 14, line 12-13, neither reference provides for aggregating change logs.....

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As to the above arguments [f-g], examiner disagree with the applicant because firstly, Bowen is directed to updating database entries or values , more specifically updating database values by means of aggregation of base values [see Abstract], secondly, Bowen teaches for example aggregation system fig 1, element 30, that performs updates, reads of data values using aggregation techniques [col 5, line 43-47], thirdly, as best understood by the examiner, Bowen teaches for example aggregation system performs not only update operations through incremental updates, but also writes them into the log relation maintained in the memory as suggested by Bowen, col 4, line 45-50.

h) At page 14, line 3-6, applicant argues 'as such there is no motivation in either

As to the above argument [h], as best understood by the examiner, both Birkler, Bowen are directed to database management system, more specifically Birkler directed to synchronization method in storing a change log having an associated change counter at a first database, updates the change counter at the first database in response to a database update command from a second database [see Abstract], while Bowen et al is directed to database management system which aggregation processor performs update operations by receiving the incremental updates from the computer and writing them into the log relation maintained in the memory [see fig 2, element 35, col 4, line 45-50]. One of ordinary skill in the art at the time of the inventing would have been motivated to modify the Birkler's reference, more specifically Birkler's fig 2 to

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incorporate the aggregation system fig 1, element 30 of Bowen et al. because that would have allowed users of Birkler optimization of synchronization procedures that utilize a change log system to control the aggregation system processor to update and maintain in the log, bringing the advantages of avoiding locking of database records for extended period of time, further greater levels of improving concurrency as suggested by Bowen et al [see col 4, line 15-27].

Examiner applies above arguments to dependent claims 2-7.

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Conclusion

The prior art made of record

- | | | |
|----|---------------|----------------|
| a. | WO 00/29998 | |
| b. | US Patent No. | 5832519 |
| c. | US Patent No. | 58452836393419 |

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

- | | | |
|----|---------------|--------------|
| d. | US Patent No. | 6457062 |
| e. | US Patent No. | 6401104 |
| f. | US Patent No. | 6034621 |
| g. | US Patent No. | 6058399 |
| h. | US Patent No. | 5758150 |
| i. | US Patent No. | 5649195 |
| j. | US Patent No. | 2002/0138765 |
| k. | US Patent No. | 5729735 |
| l. | EP1180890 | |

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THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is (703) 308-8538. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time. The TC2100's Customer Service number is (703) 306-5631.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax phone numbers for the organization where the application or proceeding is assigned are as follows:

703/746-7238	(After Final Communication)
703/746-7239	(Offical Communications)
703/746-7240	(For Status inquiries, draft communication)

Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

SC 
Patent Examiner.
April 23, 2003.